### PATENT COOPERATION TREATY

# **PCT**

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# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		See Form PCT/IPEA/416				
2022249PC/or	FOR FURTHER ACTION	See Form PC1/IFEA/410				
International application No.	International filing date (day/mor	nth/year) Priority date (day/month/year)	- 1			
PCT/FI 2003/000976	19.12.2003	20.12.2002				
International Patent Classification (IPC) or national classification and IPC						
G01R 29/08, H01P 3/12						
GOIR 25, GO, 11011 0, 11						
Applicant						
ELEKTROBIT OY et al			一一			
This report is the international pro Authority under Article 35 and tr	eliminary examination report, esta ansmitted to the applicant accordi	blished by this International Preliminary Examining ing to Article 36.				
2. This REPORT consists of a total	of 4 sheets, include	ling this cover sheet.				
3. This report is also accompanied b	y ANNEXES, comprising:					
(cent to the applican	t and to the International Bureau)	a total of sheets, as follows:	l			
about of the	description claims and/or drawin	os which have been amended and are the basis of this	report			
and/or sheets	s containing rectifications authorize ve Instructions).	ged by this Authority (see Rule 70.16 and Section 607	of the			
shoots which	supercade earlier sheets but which	ch this Authority considers contain an amendment tha	t goes			
beyond the d	lisclosure in the international appl	ication as filed, as indicated in item 4 of Box No. I an	d the			
Supplementa						
b (sent to the Internati	ional Bureau only) a total of (indic	cate type and number of electronic carrier(s))				
1.11- Comp. only.	, containing a se	quence listing and/or tables related thereto, in comput Box Relating to Sequence Listing (see Section 802 of	the			
Administrative Instr		DON REMAINS to 2042-00-0				
4. This report contains indications	relating to the following items:					
	of the report					
Box No. II Priori	ty					
Box No. III Non-e	establishment of opinion with rega	rd to novelty, inventive step and industrial applicabili	ty			
Box No. IV Lack	of unity of invention					
Box No. V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial						
applic	applicability; citations and explanations supporting such statement					
Box No. VI Certain documents cited						
Box No. VIII Certain observations on the international application						
Date of minuscian of the dome.	Date	of completion of this report				
Date of submission of the demand		•				
00 07 2004		14-03-2005				
09-07-2004 Name and mailing address of the IPEA/SE		Authorized officer				
Patent- och registreringsverket						
Box 5055 S-102 42 STOCKHOLM	L L	der Gjervaldsaeter/MN				
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Form PCT/IPEA/409 (cover sheet) (January 2004)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FI 2003/000976

Box	No. I	Basis of the report
1.	With re	egard to the language, this report is based on the international application in the language in which it was filed, unless ise indicated under this item.
		This report is based on a translation from the original language into the following language, which is the language of a translation furnished for the purposes of:
		international search (under Rules 12.3 and 23.1(b))
		publication of the international application (under Rule 12.4)
		international preliminary examination (under Rules 55.2 and/or 55.3)
2.	furnish	regard to the elements of the international application, this report is based on (replacement sheets which have been need to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" are not annexed to this report):
	$\bowtie$	the international application as originally filed/furnished
	Ш	the description:  as originally filed/furnished
ļ		pages
1		pages* received by this Authority on
		pug.
}		the claims:  as originally filed/furnished
•		pages as originally incortain and the pages*  as amended (together with any statement) under Article 19
l		pages* received by this Authority on
		pages* received by this Authority on
		the drawings:
1		pages as originally filed/furnished
		pages* received by this Authority on
		pages* received by this Authority on
		a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3.	. 🔲	The amendments have resulted in the cancellation of:
1		the description, pages
1		the claims, Nos.
		the drawings, sheets/figs
		the sequence listing (specify):
		any table(s) related to the sequence listing (specify):
4	l. 🔲	This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Ru 70.2(c)).
		the description, pages
		the claims, Nos.
		the drawings, sheets/figs
		the sequence listing (specify):
		any table(s) related to the sequence listing (specify):
	* If ite	em 4 applies, some or all of those sheets may be marked "superseded."
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#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FI 2003/000976

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

•	C1 - 1 1
1.	Statement

Novelty (N)	Claims Claims	1-23	YES NO
Inventive step (IS)	Claims Claims	1-23	YES NO
Industrial applicability (IA)	Claims Claims	1-23	YES NO

2. Citations and explanations (Rule 70.7)

#### The claimed invention

The examiner has understood the application to consist of the following:

The application aims at testing the transmitter and receiver parts of a mobile phone wherein the test equipment is built to support different operating frequencies. The mobile phone is tested by placing the phone inside a waveguide, wherein the waveguide is of ridge type and the ridge is bevelled to achieve a very broad band test device. A single coupling is used for the wideband measurements.

#### Prior art

Reference is made to the following documents:

D1: US 6188365 B1 D2: US 3383630 A

D3: Robert E. Collin, "Foundations for Microwave Engineering"

D4: US 6088582 A D5: US 6021315 A

D6: EP 1223432 A1

Document D1 discloses a method to test a mobile phone within a waveguide, wherein the waveguide, for example, can be a ridge waveguide. The ridge will increase the relative bandwidth of the waveguide (see D1 column 5 lines 57-62).

Document D2 describes a waveguide having bevelled ridges for preventing any reflection which may otherwise occur (see D2 column 2 lines 11-16).

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#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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#### Supplemental Box

In case the space in any of the preceding boxes is not sufficient. Continuation of: Box V

Document D3 describes the characteristics of a ridge waveguide, i.e. the ridge is capable of operating over a very broad band (see D3 page 205).

#### Statement of reason

The cited documents represent the general state of the art. The invention defined in claims 1-23 is not disclosed by any of these documents. Especially, the documents fail do show a testing device having a single coupling and bevelled ridges.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed arrangement and method for wideband testing of a radio device. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-23 is novel and is considered to involve an inventive step. The invention is industrially applicable.